

WHAT IS CLAIMED IS:

1 1. A diffusion barrier in an integrated circuit, wherein the diffusion  
2 barrier comprises a self-assembled monolayer.

1 2. The diffusion barrier according to claim 1, wherein the diffusion  
2 barrier is less than 5 nm thick.

1 3. The diffusion barrier according to claim 1, wherein the diffusion  
2 barrier is less than 2 nm thick. A

1 4. The diffusion barrier according to claim 1, wherein the self-assembled  
2 monolayer contains an aromatic group at its terminus.

1 5. The diffusion barrier according to claim 1, wherein the diffusion  
2 barrier inhibits the diffusion of Cu into a silicon-based substrate.

ADD A1 >